PDC NUMBER	DESIGN PRESSURE (bar(g))	DESIGN TEMP. (DEG. C)	MAX OPER. PRESSURE (bar(g))	MAX OPER. TEMP. (DEG. C)	PIPE CLASS	PDT	INSTR. PIPE CLASS	INSTR. PDT	INSUL-ATION TYPE	FIELD TEST PRESSURE (bar(g))	REMARKS
PS12	8.50	42.000	7.50	32.000	D	S&L 0150	D	S&L 0659	N	12.75	ASTM A312 GRTP316
PS8	8.50	42.000	7.50	32.000	D	PAC 0659	D	PAC 0659	N	12.75	ASTM A213 GRTP316
WC1	8.50	42.000	3.50	37.600	D	PAC 0100	D	PAC 0659	N	12.75	ASTM A53 GR B
WC2	8.50	42.000	7.50	37.600	D	PAC 0100	D	PAC 0659	N	12.75	ASTM A53 GR B
WC3	8.50	42.000	7.50	32.000	D	PAC 0100	D	PAC 0659	N	12.75	ASTM A53 GR B
WM2	11.00	35.000	9.00	30.000	D	PAC 0140	D	PAC 0659	N	16.50	ASTM A312 GRTP304

NOTES:
1. FOR LEGENDS & SYMBOLS PLEASE REFER TO DRAWING NO MO-0100.
2. PIPING SHALL CONTAIN HIGH POINT TO VENTS AND LOW POINT TO DRAINS OF MINIMUM DN 25 MM SIZE.
3. INSTRUMENTS CONNECTION ON PIPES AND TANKS SHALL BE AS PER PACO INSTRUMENT CONNECTION SIZE AND THERMOWELL CRITERIA DOCUMENT JO-0190 TO JO-0193.
4. ITEMS MARKED WITH * ARE IN RESPECTIVE EQUIPMENT SUPPLIER'S SCOPE OF SUPPLY.
5. ECCENTRIC (FLAT ON TOP) TYPE REDUCER SHALL BE PROVIDED AT PUMP SUCTION. FLAT ON BOTTOM TYPE SHALL BE USED IF SUPPLY PIPING IS ABOVE PUMP SUCTION NOZZLE.
6. BURIED PIPE TO BE ENCASED IN CONCRETE.
7. INSULATION GASKET KIT SHALL BE PROVIDED BY EPC CONTRACTOR FOR CONNECTION OF DISSIMILAR METAL AT VENDOR TERMINAL POINT.
8. 450 NB MANHOLE PROVIDED AT SIDE OF THE TANK FOR INSPECTION & MAINTANANCE PURPOSE.
9. TEMPORARY STRAINER TO BE REMOVED AFTER COMMISIONING.
10. THE CHANGE FROM PIPE TO TUBE SHALL BE DONE WITH CONVERTER TYPE REDUCER 25 X 15.
11. DELETED.

HOLD INFORMATION	
NO.	DESCRIPTION

REFERENCE DRAWINGS	
LHE-PP1306032-06	GA CLOSED COOLING WATER HEAT EXCHANGER (LHE) 11217D-ME-DW-MD690-P6032-00001
11217D-011 (1/2)	CLOSED COOLING WATER HEAD TANK DETAIL DRAWING 11217D-ME-DW-MC900-P6042-00001
-	GA DRAWING FOR CLOSED COOLING WATER (CCW) PUMPS 11217D-ME-DW-MF100-P6037-00001
"3" 11217D-ME-DW-MH590-P6044-00002	TANK DRAWING FOR CHEMICAL FEED SYSTEM

CONTRACTOR/INSTALLER SHALL TAKE ALL APPROPRIATE PRECAUTIONS TO ENSURE THE SAFETY OF ALL PEOPLE LOCATED ON THE WORK SITE, INCLUDING CONTRACTOR'S/INSTALLER'S PERSONNEL (OR THAT OF ITS SUB-CONTRACTOR(S)) PERFORMING THE WORK.

Contractors: SK E&C USA — Engineers: Sargent & Lundy

Client: Minera Panamá

PROJECT NO.: 12889-001

Project Title: PACO POWER PLANT

DRAWING TITLE

P&ID
CLOSED COOLING WATER SYSTEM

DRAWING NUMBER	REVISION
M2-0115	3
SHEET 1 OF 4	

CAD FILE: M2-0115-001.DGN

DRAWING RELEASE RECORD					
REV.	DATE REL'D.	PREPARED	REVIEWED	APPROVED	PURPOSE
0	06-27-2013	M.H.PATEL	K.BELLIGUNDU	Y.MISHRA/R.JOHNSTON	ISSUED FOR CONSTRUCTION
1	07-03-2014	M.H.PATEL/D.CHAUHAN	K.BELLIGUNDU	Y.MISHRA/R.JOHNSTON	ISSUED FOR CONSTRUCTION
2	02-02-2015	D.CHAUHAN	K.BELLIGUNDU	Y.MISHRA/R.JOHNSTON	ISSUED FOR CONSTRUCTION
3	12-18-2015	M.PATEL	K.BELLIGUNDU	Y.MISHRA/R.JOHNSTON	ISSUED FOR CONSTRUCTION